

**REMARKS**

In the present case, claims 1-15 are pending. In the non-final Office Action, the Office has rejected the claims as follows: claims 1-15 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention; claims 1-3 and 7-15 are rejected under 35 U.S.C. § 102 as being anticipated by Hook et al. (US 4,785,461) and claims 4-6 are rejected under 35 U.S.C. § 103 as being unpatentable over Hook et al.

For the reasons set forth herein, the undersigned representative submits that claims 1-15 are allowable and respectfully request a notice to this effect.

**Rejection Under 35 U.S.C. 112**

The Office has rejected the claims "as being incomplete for omitting essential structural cooperative relationships of elements, such as omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01." The Office has further suggested that the claims should be amended to reflect exactly what is shown in Figure 3. This is clearly and unequivocally NOT a requirement. There is no case law, statute, or rule that supports what the Office is suggesting. In fact, MPEP § 2164.08(c) which is referenced in the first line of MPEP § 2172.01 states,

**Limiting an applicant to the preferred materials in the absence of limiting prior art would not serve the constitutional purpose of promoting the progress in the useful arts.** Therefore, an enablement rejection based on the grounds that a disclosed critical limitation is missing from a claim should be made only when the language of the specification makes it clear that the limitation is critical for the invention to function as intended. Broad language in the disclosure, including the abstract, omitting an allegedly critical feature, tends to rebut the argument of criticality.

(emphasis added). In this case, contrary to the established authority, the Examiner is suggesting that the applicant must limit its claims to the preferred embodiment. Nowhere in the specification are the words "critical" or "essential" used with respect to the location of the gain regions, etc. The specification simply does not disclose the criticality or essential nature of the components and thus the undersigned representative is not required to add the limitations as suggested by the Office. Claim 13 has been amended as set forth above to address the antecedent basis rejection.

**Rejection Under 35 U.S.C. 102**

The Office has rejected claims 1-3 and 7-15 as being anticipated by Hook et al. Independent claims 1, 10 and 14 as filed, include the following combinations of limitations:

1. A component for a combustible laser comprising:  
a first and a second gain region;  
a combustion region; and  
a first and a second nozzle blade, wherein the first and the second nozzle blades separate the combustion region from the first and second gain regions; and  
further wherein each of the first and second nozzle blades is comprised of a primary structure and a secondary structure.
10. A component for a combustion laser comprising:  
at least one inlet manifold for receiving and distributing combustion fuel;  
at least one upper manifold sheet having holes therein for receiving combustion fuel from the at least one inlet manifold and further distributing the combustion fuel;  
at least one pair of nozzle blade structures for receiving the combustion fuel from the at least one upper manifold sheet; and  
at least one lower manifold sheet, wherein the at least one inlet manifold, the at least one upper manifold sheet, the at least one pair of nozzle blade structures, and the at least one manifold sheet are stacked one on the other and affixed one to the other in a stacked relationship.
14. A laser comprising:

at least two combustion modules, wherein the at least two combustion modules each include a combustion region and two gain regions such that the combustion region is separated on two sides from the two gain regions via two nozzles structures; and

further wherein the at least two combustion modules are adjacent to one another such that the combustion region, the two gain regions, and the two nozzle structures for each of the at least two combustion modules are aligned.

Initially, with respect to independent claims 1 and 14, Hook clearly does not teach or suggest, among other limitations,

- "a first and a second gain region,"
- "two gain regions,"
- "a first and a second nozzle blade, wherein the first and the second nozzle blades separate the combustion region from the first and second gain regions," or
- "a combustion region and two gain regions such that the combustion region is separated on two sides from the two gain regions via two nozzles structures."

The Office states in the non-final rejection, "There are inherently gain regions, as such regions are necessary for the operation of the laser. The nozzles will separate the gain regions from the combustion regions." The requirement for supporting an inherency argument is found in MPEP § 2122 which states explicitly,

**EXAMINER MUST PROVIDE RATIONALE OR EVIDENCE  
TENDING TO SHOW INHERENCY**

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted) . . . .

....

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original).... .

In this case, while it may be true that a single gain region would arguably be inherent to the operation of a laser, there is absolutely no evidence to support an inherency argument with respect to two different gains regions. Further claims 1 and 14 specifically recite that these two different gain regions are separate from a combustion region by claimed nozzle configurations. Clearly the Examiner has not and cannot provide evidence that these limitations are necessarily present in the teachings of Hook.

With regard to independent claim 10, the recited limitations include, generally, an inlet manifold, an upper manifold, a pair of nozzle blades and a lower manifold, stacked and affixed to one another in this order. The Office states generally that Hook teaches these limitations on Page 3 of the non-final Office Action, but fails to cite where these limitations are actually recited within the reference. Reference is made to FIG. 7 of the reference, wherein the Office equates certain components of FIG. 7 with the inlet manifold, the upper manifold and the lower manifold recited in claim 10. Even assuming that the components referenced in FIG. 7 can be equated to an inlet manifold, an upper manifold and a lower manifold, claim 10 also requires that "a pair of nozzle blades" is located between upper and lower manifolds and that all of the components are in a stacked, affixed relationship. Referring to Column 4, lines 14-17, the Hook reference actually teaches away from this configurations stating:

A premixed cold reaction laser 60 is shown in FIG. 7 wherein the secondary injector section 62 is rotated 90 degrees from that shown in FIG. 3 and separated from nozzle wall 46.

(emphasis added). Consequently, the configuration of FIG. 7 does not teach or suggest the limitations of claim 10.

The Office has further rejected dependent claims 2-3, 7-9, 11-13 and 15 as being anticipated by Hook. For the reasons stated above with respect to independent claims 1 and 10, these claims are also deemed to be allowable. The undersigned representative does not accept the rejections recited with respect to claims 2-3, 7-9, 11-13 and 15, but merely identifies the rejections as being moot in view of previous arguments. The undersigned representative reserves the right to address such arguments at a later time.

As such, the undersigned representative respectfully submits that the claims are allowable over Hook.

#### Rejection Under 35 U.S.C. 103

The Office has rejected claims 4-6 in view of Hook. For the reasons stated above with respect to independent claim 1, these claims are also deemed to be allowable. The undersigned representative does not accept the rejection recited with respect to claims 4-6, but merely identifies the rejection as being moot in view of previous arguments. The undersigned representative reserves the right to address such arguments at a later time.

**CONCLUSION**

The undersigned representative respectfully submits that the claims are allowable for the reasons set forth herein. A Notice of Allowance to this effect is earnestly solicited. The Examiner is asked to please contact the undersigned attorney at the number provided if such contact will expedite the prosecution of this application.

Respectfully submitted,

Date: 11/5/03  
KILPATRICK STOCKTON LLP  
Suite 900  
607 14th Street, N.W.  
Washington, D.C. 20005  
(202) 508-5800

By: Dawn-Marie Bey  
Dawn-Marie Bey  
Registration No. 44,442